

U.S. Application No. 10/608,335
Response to Office Action dated January 17, 2008

Attorney Docket: 500.42880X00

RECEIVED
CENTRAL FAX CENTER

APR 17 2008

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): A learning condition judging program embodied on a computer readable medium, the program executable in an information processing apparatus ~~connected to a near infrared measuring device, and wherein~~ the program is operable on the information processing apparatus to perform the steps of:

starting a learning program in said information processing apparatus,
wherein the information processing apparatus is connected through an information acquiring means to a near infrared measuring device, and is connected to a recording means, an input means and a display means;

displaying learning contents within a predetermined window on said display means;

continuously acquiring, as said learning program progresses, measurement information of a blood flow rate in a brain of a user of said information processing apparatus, said measurement information being obtained from said near infrared measuring device through said ~~an~~ information acquiring means;

acquiring input information and operation information given by said user to said information processing apparatus through said input means, wherein the input information and the operation information indicate progress of said learning program;

U.S. Application No. 10/608,335
Response to Office Action dated January 17, 2008

Attorney Docket: 500.42880X00

acquiring audio or video information of said user of said information processing apparatus so as to obtain attention information of said user through at least one of a microphone and a camera connected to said information processing apparatus;

analyzing a rate of change in hemoglobin concentration from said blood flow rate;

judging, when an event occurs within the predetermined window, when a facial image of the user is recognized, or when said audio information includes predetermined audio information, whether a degree of concentration of said user to said learning program is higher than a predetermined degree by using said measurement information of said blood flow rate and said attention information to determine that the user is in concentration time; and

recording displaying said degree of concentration of the user and said attention information of the user with said progress of said learning program in said recording means.

2. (canceled).

3. (previously presented): A learning condition judging program embodied on a computer readable medium, the program executable on a computer, and the program operable on the computer to perform the steps of:

acquiring concurrently, through input means, information of contents executed in a connected terminal, information of a blood flow rate in a brain of a

U.S. Application No. 10/608,335
Response to Office Action dated January 17, 2008

Attorney Docket: 500.42880X00

user of said terminal, and operation information and input information given by said user to said terminal;

analyzing a rate of change in hemoglobin concentration from said blood flow rate;

acquiring audio or video information of said user of said information processing apparatus so as to obtain attention information of said user through at least one of a microphone and a camera connected to said terminal;

judging a degree of concentration of said user to said information of contents using said analyzed rate of change in hemoglobin concentration at a corresponding time and said attention information; and

displaying said degree of concentration of the user and said attention information of the user with corresponding time of said information of contents.

4-6. (canceled).

7. (previously presented): A learning condition judging program according to Claim 3, further operable on the computer to perform the step of:
giving notice to said user of said terminal in accordance with a result of said step of judging said degree of concentration.

8. (canceled).

9. (previously presented): A learning condition judging program

U.S. Application No. 10/608,335
Response to Office Action dated January 17, 2008

Attorney Docket: 500.42880X00

according to Claim 3, further operable on the computer to perform a step of judging whether said input information is a correct answer to an exercise included in said learning contents or not is further provided; and

wherein said step of judging a degree of concentration also uses a result of the step of judging whether said input information is a correct answer.

10. (previously presented): A learning condition judging program according to Claim 3, further operable on the computer to perform the step of: providing an answer judging means for judging whether said input information is a correct answer to an exercise included in said learning contents or not,

wherein said step of judging a degree of concentration also uses a result of said answer judging means.

11. (previously presented): A learning condition judging program according to Claim 9, further operable on the computer to perform the step of: displaying, on the display, information of said degree of concentration and information of a rate of correct answers for each exercise included in said learning contents, said rate of correct answers being obtained from the result of the step of judging whether said input information is a correct answer.

12. (previously presented): A learning condition judging program according to Claim 10, further operable on the computer to perform the step of:

U.S. Application No. 10/608,335
Response to Office Action dated January 17, 2008

Attorney Docket: 500.42880X00

displaying, on a display, information of said degree of concentration and information of a rate of correct answers for each exercise included in said learning contents, said rate of correct answers being obtained from said result of said answer judging means.

13. (currently amended): A system comprising:

a near infrared measuring device;

a terminal connected to said near infrared measuring device for measuring a blood flow rate in a brain of a user of said terminal; and

a server connected to said terminal through a network,

wherein said server includes a recording means for recording contents information;

wherein said terminal includes:

means for starting a learning program, displaying learning contents within a predetermined window on said display means, and continuously acquiring measurement information from said near infrared measuring device;

a display for displaying said contents information received from said server; and

input means for accepting input instructions and operation instructions for said displayed contents information, wherein the input instructions and operation instructions indicate progress of a user's learning of the contents information; and

means for acquiring audio or video information of said user so as to obtain user's attention information;

U.S. Application No. 10/608,335
Response to Office Action dated January 17, 2008

Attorney Docket: 500.42880X00

wherein said server further includes:

a storage for storing inputs from said input means, said measurement information from said near infrared measuring device, said acquired audio or video information as attention information of the user, and said displayed contents information at corresponding times in association with one another; and

means for analyzing a rate of change in hemoglobin concentration from said blood flow rate and judging, when an event occurs within the predetermined window, when a facial image of the user is recognized, or when said audio information includes predetermined audio information, whether a degree of concentration of the user to the contents information is higher than a predetermined degree, based on said measurement information from said near infrared measuring device and said attention information to determine that the user is in concentration time; and

means for displaying to said display said degree of concentration of the user and said attention information of the user with corresponding time of the contents.

14. (previously presented): A learning condition judging program according to Claim 1, wherein said video information of the user is acquired as facial information or head behavior information of the user, and said camera judges as to whether the user is present in front of the screen or not, the direction of the head of the user, and expression of the user.

15. (previously presented): A learning condition judging program according to Claim 1, wherein said audio information of the user is acquired as text

U.S. Application No. 10/608,335
Response to Office Action dated January 17, 2008

Attorney Docket: 500.42880X00

information which is extracted from voice of the user through said microphone.

16. (new): A learning condition judging program according to claim 1, further comprising a step of notifying the user of warning output through said display means when it is judged that the user is not in concentration time.

17. (new): A system according to claim 13, further comprising means for notifying the user of warning output through said display means when it is judged that the user is not in concentration time.